1891MNRAS..51..331T

Double Star Measures at Windsor, New South Wales, 1889 *and* 1890. By John Tebbutt.

This communication contains the results of my double star measures during the years 1889 and 1890. The Grubb 8-inch equatoreal was employed throughout. The column headed "Hour-angles" gives the hour-angles between which the measures were made, and the last column the weights assigned from a consideration of the conditions under which the observations were made: 1 denotes an unusually bad condition and 5 an unusually good one. In the observations numbered 1, 6, 7, 24, 25 the components were estimated to be exactly equal. Observations 20 and 23 were made before sunset, and 2, 3, 4, 8, 13, 14, 21, 22, 29 in twilight. In observation 12 the driving-clock did not act well, and the measures were very inconsistent. The rapid angular motion of *Lalande* 4219, as indicated by the Washington, Leander McCormick, and Pinner observations, is not confirmed by the measures obtained here. The orbit of γ *Coronæ Australis* is at present far from being satisfactorily determined. Mr. Powell, in his paper published in the *Monthly Notices* for March last, states that the Windsor measures of distance are considerably greater than they should be. A practised observer will, however, be satisfied, by a mere glance at the components, that the distance is much greater than that shown by Mr. Powell's orbit. Mr. Burnham, in *Astron. Nachr.* Band 124, p. 74, gives the distance for 1889·41 as 1″·79. The following errata occur in my Double Star Results in the *Monthly Notices* for November 1889 :—Page 25, *for* Lac. 5147 *read* α′ Crucis and Lac. 5147 ; page 26, *for* 1888·320 *read* 1888·326.

1891MNRAS..51..331T

Double Star Measures at Windsor, New South Wales, 1889 *and* 1890.

No.	Star.	Observed Magnitude.	Approx. Place of Star. R.A.	Approx. Place of Star. Dec. S.	Date of Obs.	Position-angle.	No. of Obs.	Distance.	No. of Obs.	Mag. Power.	Hour-angles.	Hour-angles.	Weight.
			h m	° ′		°		″			h m	h m	
1	*p* Eridani	6, 6	1 36	56 45	1889·852	226·8	10	...	...	230	1 42 E	1 30 E	4
2	,,	...	,,	,,	1889·882	226·6	10	...	...	230	2 38 E	2 30 E	4
3	,,	...	,,	,,	1889·884	...	...	7·07	10	230	2 50 E	2 36 E	4
4	,,	...	,,	,,	1889·884	227·5	10	...	...	230	2 36 E	2 26 E	4
5	,,	...	,,	,,	1889·904	...	...	6·92	10	170	2 10 E	1 54 E	4
6	,,	...	,,	,,	1890·819	...	...	7·15	10	170	2 21 E	2 6 E	4
7	,,	...	,,	,,	1890·819	226·9	10	...	...	300	2 6 E	1 40 E	4
8	,,	...	,,	,,	1890·832	227·4	10	...	...	300	4 14 E	4 3 E	4
9	Lalande, 4219	8½, 9	2 11	18 44	1890·857	...	...	1·86	10	170	1 14 E	0 53 E	3
10	,,	...	,,	,,	1890·857	343·2	10	...	...	230	0 19 E	0 6 W	2
11	,,	8, 8½	,,	,,	1890·923	344·8	10	...	...	230	1 3 E	0 36 E	3
12	,,	...	,,	,,	1890·980	339·6	10	...	...	230	1 22 W	1 56 W	2
13	γ Centauri	...	12 35	48 21	1890·361	358·9	10	...	...	300	4 7 E	3 42 E	4
14	,,	...	,,	,,	1890·361	359·0	10	1·84	8	500			
15	*h* 4634	9, 10	13 50	55 30	1890·359	17·6	10	12·87	7	140	2 11 E	1 43 E	4
16	α Centauri	...	14 32	60 23	1890·359	...	...	18·75	7	140	2 21 E	1 43 E	4
17	,,	...	,,	,,	1890·359	205·2	10	...	...	230			
18	,,	...	,,	,,	1890·463	...	...	18·42	10	130	1 23 E	0 59 E	3
19	,,	...	,,	,,	1890·463	205·2	10	...	...	140	0 59 E	0 29 E	3

1891MNRAS..51..331T

No.	Star.	Observed Magnitude.	Approx. Place of Star. R.A.	Approx. Place of Star. Dec. S.	Date of Obs.	Position-angle.	No. of Obs.	Distance.	No. of Obs.	Mag. Power.	Hour-angles.		Weight.
			h m	° ′		°		″			h m	h m	
20	α Centauri	...	14 32	60 23	1890·734	...	...	18·60	10	170	3 15 W	3 30 W	3
21	,,	...	,,	,,	1890·734	204·6	10	...	...	300	3 40 W	3 49 W	3
22	,,	...	,,	,,	1890·734	...	...	18·77	10	300	3 59 W	4 12 W	3
23	,,	...	,,	,,	1890·750	...	...	18·71	10	...	3 32 W	3 50 W	3
24	Brisb. 5784	9, 9	16 33	60 43	1890·734	116·6	10	...	...	230	3 52 W	4 15 W	4
25	,,	...	,,	,,	1890·734	...	...	3·50	10	170	4 27 W	4 43 W	4
26	Brisb. 6556	...	18 54	37 13	1889·849	282·7	8	...	...	140	4 18 W	4 44 W	4
27	γ Cor. Aust.	...	18 59	37 13	1889·813	...	...	2·30	10	130	...	...	3
28	,,	...	,,	,,	1889 835	184·5	10	...	...	140	3 15 W	3 28 W	4
29	,,	...	,,	,,	1889·838	185 4	10	...	...	230	...	2 38 W	4
30	,,	6, 6	,,	,,	1889·849	186·9	10	...	...	230	2 51 W	3 1 W	4
31	,,	...	,,	,,	1889·849	185·0	10	...	...	140	4 18 W	4 44 W	4
32	,,	...	,,	,,	1890·531	182·8	10	...	...	300	3 33 E	3 16 E	3
33	,,	...	,,	,,	1890·531	...	...	1·62	5	300	3 16 E	3 2 E	3
34	,,	...	,,	,,	1890·534	182·8	10	...	...	300	2 27 E	2 14 E	3
35	,,	...	,,	,,	1890·550	185·6	10	...	...	300	3 9 E	2 51 E	3
36	,,	...	,,	,,	1890·550	...	...	1·63	10	170	2 20 E	2 6 E	4
37	,,	...	,,	,,	1890 600	...	...	1·64	10	170	2 12 E	2 0 E	3
38	,,	...	,,	,,	1890·709	180·7	10	...	...	170	2 12 W	2 28 W	...
39	,,	...	,,	,,	1890·709	...	...	1·54	10	...	2 39 W	3 1 W	...

Private Observatory, Windsor, New South Wales:
1891 *January* 16.

1891MNRAS..51..331T

Observations of the Variable Star S. (10) *Sagittæ.* By J. E. Gore.

The following are my observations of this short-period variable during the year 1890. They form a continuation of the observations given in *Monthly Notices* for March 1890.

The comparison stars are as before :—

	Mag.
11 Sagittæ	5·8
D M + 16°, 4086	7·0

Date.		Dublin M.T. h	m	Mag.
1890, Jan.	8	6	6	6·24
	13	5	55	5·8
May	14	10	18	6·34
	18	10	30	6·0
	26	10	35	5·65
July	10	10	50	6·2
	16	10	37	6·0
	27	9	50	6·34
	30	9	55	6·3
Aug.	5	10	35	6·16
	6	9	20	6·4
	7	9	25	6·48
	8	10	15	6·2
	9	9	20	6·1
	11	10	25	5·8
	15	9	0	6·37
	16	10	15	6·2
	17	9	12	6·0
	25	9	20	6·0
	28	9	10	5·8
	29	9	0	5·95
	30	9	10	6·1
1890, Sept.	4	8	30 (?)	5·8
	6	8	20	6·0
	6	10	25	5·95
	7	8	40	6·1
	8	8	28	6·24
	9	9	10	6·34
	12	8	42	5·95
	15	9	40	6·12
	18	8	15	6·24
	22	10	0	5·8
	27	10	14	6·23
	28	7	15	6·2
Oct.	7	7	20	5·8
	8	6	45	5·65
	12	9	10	6·34
	17	8	20	5·8
Nov.	7	6	50	6·28
	8	10	15	6·04
	11	8	15	5·8
	12	7	58	5·73
	15	6	25	6·33
Dec.	4	5	40	6·08
	29	6	30	6·13